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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,124	02/05/2002	Hendrik Johannes G. Pretorius	MBC-0416	5764

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EXAMINER

CHOI, LING SIU

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/068,124	Applicant(s) PRETORIOUS ET AL.	
	Examiner Ling-Siu Choi	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 34-73 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 34-73 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/07/2002</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. This Office Action is in response to the Response to Election/Restriction Requirement filed April 19, 2004. Claims 1-33 were canceled and claims 42-73 have been added. Claims 34-73 are now pending.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 34-36 and 40-41 are provisionally rejected under the judicially created doctrine of double patenting over claims 31-35 of copending Application No. 10/260,847. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that

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copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

present invention (10/068,124)	10/260,847
claims 34 [35, 36] and 40 [41]	claims 31 [32, 33] and 34 [35]
<p>a mixture of a monomer, an initiator, a fire retardant</p> <p>optionally at least one of a crosslinking agent, a second monomer, a smoke retardant, a rheology modifier, a reaction rate modifier, a plasticizer, an emulsifier, a defoamer, a filler, a wet surface adhesion modifier, and a coloring agent</p> <p>wherein the monomer is selected from the group consisting of aryloxy alkyl acrylates, aryloxy alkyl methacrylates, and mixtures thereof</p>	<p>a mixture of a monomer, a comonomer, an initiator, a fire retardant</p> <p>optionally at least one of a crosslinking agent, a smoke retardant, a rheology modifier, a reaction rate modifier, a plasticizer, an emulsifier, a defoamer, a filler, and a coloring agent</p> <p>wherein the monomer is selected from the group consisting of aryloxy alkyl acrylates, aryloxy alkyl methacrylates, and mixtures thereof and the comonomer is selected from the group consisting of alkyl ester acrylate, alkyl ester methacrylates, and mixtures thereof</p>

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 103

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 34-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pretorius (WO 00/69970) in view of Lipson et al. (US 4,064,287).

The present invention relates to a method to reinforce exposed structure surfaces in an excavation with a polymeric structural support membrane, the method comprising

(a) applying to the exposed surface a mixture of	a monomer, an initiator, a fire retardant
	optionally at least one of a crosslinking agent, a second monomer, a smoke retardant, a rheology modifier, a reaction rate modifier, a plasticizer, an emulsifier, a defoamer, a filler, a wet surface adhesion modifier, and a coloring agent
wherein the monomer is selected from the group consisting of aryloxy alkyl acrylates, aryloxy alkyl methacrylates , and mixtures thereof wherein the second monomer does not homopolymerize in the presence of the reaction rate modifier or the initiator and reacting the mixture	
(b) reacting the mixture	
wherein the membrane has a tensile strength and thickness sufficient to provide support to the exposed surfaces in the excavation	

(summary of claim 34)

Pretorius discloses a process to apply a support membrane in the excavation, the support membrane comprising a polymer that is initiator-induced reaction product of monomer; a self-extinguishing agent; and optionally at least one of cross-linking agent, rheology modifier, reaction rate modifier, plasticizer, emulsifier, defoamer, filler, wet surface adhesion modifier, and color agent; wherein the monomer can be alkyl ester acrylates, alkyl ester methacrylates, or mixture thereof; hydroxy propyl methacrylate, hydroxy ethyl methacrylate, or mixture thereof and wherein the membrane has a tensile strength, a thickness, and a molecular weight sufficient to provide support to exposed surfaces in an excavation (page 4, lines 16-31; page 5, lines 1-14; claim 1).

The difference between the present claims and the disclosure of Pretorius is the requirement of an aryloxy alkyl acrylate, an aryloxy alkyl methacrylates, or a mixture thereof to be used in the process to form the structural support membrane in excavation.

Lipson et al. disclose a highly durable coating obtained from the composition comprising aryloxyalkyl acrylate monomer, a polymerizable diluent, and a free-radical initiating system (abstract). Lipson et al. also disclose that the use of aryloxyalkyl acrylate leads to an improvement in the adhesion of a film to various substrates; high temperature resistance; and solvent resistance (col. 4, lines 6-9; col. 6, lines 2-15). It is noted that Pretorius is silent on the the use of such compound. However, Pretorius do recognize the use of a di-functional monomer having non-ethylenic groups as additional functionality, such as hydroxy propyl methacrylate or hydroxy ethyl methacrylate, in the

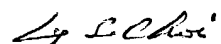
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process to reinforce exposed surfaces in an excavation (page 4, lines 26-31). Since aryloxy alkyl (meth)acrylate and hydroxy alkyl (meth)acrylate are substantially identical in the polymerization mechanism, the ordinary skill in the art would recognize such replacement in light of these benefits. Thus, it would have been obvious for the ordinary skill in the art at the time the invention was made to use the specific (meth)acrylate in the disclosure of Pretorius and thereby obtain the present invention.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on 571-272-1114.



Ling-Siu Choi

June 10, 2004